

Serial No. 10/795,944

Supplemental Amendment dated August 15, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-13. (canceled).

14 (currently amended). A method of treating sludge containing ~~biologically active~~ cellular units including intercellular water, intracellular water and organic solids, comprising:

(a) directing the sludge to an electroporating ~~station~~ system;

(b) electroporating the sludge for destroying at least most of the cellular units contained therein; and

said (b) causing disruption of the cellular units, allowing for the release of ~~matter~~ intercellular water, intracellular water and organic solids; and

(c) directing the ~~released-matter~~ electroporated sludge to a bioreactor for performing biological digestion thereon whereby the ~~matter~~ electroporated sludge is used as food.

15 (currently amended). The method according to claim 14, wherein (c) comprises delivering the ~~released-matter~~ electroporated sludge to at least one of: an aerobic, anoxic, facultative, or anaerobic bioreactor.

16 (currently amended). The method according to claim 14, further comprising, before (a):

(d) transporting the sludge from a primary treatment apparatus to at least one bioreactor of a secondary treatment apparatus; and

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(e) said (c) comprising recycling the ~~released matter~~ electroporated sludge back to said at least one bioreactor of (d).

17 (previously presented). The method according to claim 16, wherein (e) comprises delivering the destroyed cellular units of (b) to one of: an aerobic, anoxic, facultative, or anaerobic bioreactor.

18 (previously presented). The method according to claim 16, wherein said secondary treatment apparatus further comprises a sludge dewatering apparatus; said (c) further comprising:

(f) delivering the destroyed cellular units of (b) to another bioreactor downstream from said at least one bioreactor and upstream of said sludge dewatering apparatus.

19 (previously presented). The method according to claim 18, wherein (c) comprises delivering the destroyed cellular units of (b) to one of: an aerobic, anoxic, facultative, or anaerobic bioreactor.

20 (previously presented). The method according to claim 14, further comprising, before said (a):

(f) transporting the sludge from a primary treatment apparatus to a secondary treatment apparatus;

said secondary treatment apparatus comprising a sludge dewatering apparatus; said (c) comprising delivering the destroyed cellular units of (b) to a bioreactor upstream of said sludge dewatering apparatus.

21 (currently amended). A method of treating sludge containing ~~biologically active~~ cellular units including intercellular water, intracellular water and organic solids, comprising:

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(a) delivering sludge to an electroporation ~~apparatus~~ system;

(b) electroporating said sludge in said electroporation ~~apparatus~~ system by exposing said sludge to a pulsed electric field to disrupt said cellular units and to release ~~matter~~ intercellular water, intracellular water and organic solids; and

(c) delivering said ~~matter~~ electroporated sludge to at least one bioreactor for reaction therewith;

said (c) comprising supplying said ~~matter~~ electroporated sludge as food for said at least one bioreactor.

22 (currently amended). The method according to claim 21, wherein (c) comprises delivering said ~~matter~~ electroporated sludge to at least one of: an aerobic, anoxic, facultative, or anaerobic bioreactor.

23 (currently amended). A method of treating sludge containing ~~biologically active~~ cellular units including intercellular water, intracellular water and organic solids, comprising:

(a) delivering sludge to an electroporation ~~apparatus~~ system;

(b) electroporating said sludge in said electroporation ~~apparatus~~ system by exposing said sludge to a pulsed electric field to disrupt said cellular units and to release ~~organic matter~~ solids; and

(c) supplying said released organic ~~matter~~ solids as food to a means for biologically digesting organic ~~matter~~ solids.

24 (currently amended). The method according to claim 23, wherein (c) comprises delivering the released organic ~~matter~~ solids to at least one of: an aerobic, anoxic, facultative, or anaerobic bioreactor.

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25 (currently amended). The method according to claim 23, further comprising, before (a):

(d) transporting said sludge from a primary treatment apparatus to at least one bioreactor of a secondary treatment apparatus; and

(e) said (c) comprising recycling the released matter solids back to said at least one bioreactor of (d).

26 (previously presented). The method according to claim 25, wherein (e) comprises delivering the disrupted cellular units of (b) to one of: an aerobic, anoxic, facultative, or anaerobic bioreactor.

Claims 27-29 (canceled).